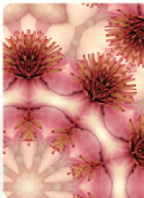


HTML and XHTML  
2016/09/04

## Tutorial 5

### Working with Web Tables



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## Objectives

- Explore the structure of a Web table
- Create headings and cells in a table
- Create cells that span multiple rows and columns
- Create row and column groups
- Add a caption and a summary to a table
- Format a table using HTML attributes

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## Objectives

- Format a table using CSS styles
- Collapse table borders
- Display page elements in tabular form
- Create a jigsaw layout
- Explore the use of tables for page layout
- Create rounded borders

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## Introducing Web Tables

- Each table in a Web page follows a basic structure consisting of the table element and a collection of table rows nested in the table element

```
<table>  
  <tr>  
    table cells  
  </tr>  
  <tr>  
    table cells  
  </tr>  
  ...  
</table>
```

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## Introducing Web Tables

- **Table headings**, the cells that identify the contents of a row or column, are marked using a <th> tag
- **Data cells** are marked with the <td> tag and are used for any content that is not considered a heading

```
<table class="schedule">  
  <tr>  
    <th>Time</th>  
    <th>Monday</th>  
    <th>Tuesday</th>  
    <th>Wednesday</th>  
    <th>Thursday</th>  
    <th>Friday</th>  
    <th>Saturday</th>  
    <th>Sunday</th>  
  </tr>  
  <tr>  
    <td>6:00</td>  
    <td>National News</td>  
    <td>National News</td>  
    <td>National News</td>  
    <td>National News</td>  
    <td>National News</td>  
    <td>National News</td>  
    <td>National News</td>  
  </tr>  
  <tr>  
    <td>6:30</td>  
    <td>Local News</td>  
    <td>Local News</td>  
    <td>Local News</td>  
    <td>Local News</td>  
    <td>Local News</td>  
    <td>Local News</td>  
    <td>Local News</td>  
  </tr>  
</table>
```

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## Introducing Web Tables

KPAP Nightly Schedule

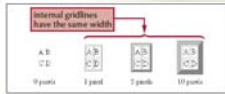
KPAP airs listener-supported public radio in Bismarck, North Dakota from 3:00 a.m. to 10:30 p.m. You can [Listen Live](#) to streaming audio of our broadcast. Please refer below for our current nightly schedule.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
6:00	National News	National News	National News	National News	National News	National News	National News
6:30	Local News	Local News	Local News	Local News	Local News	Local News	Local News

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## Introducing Web Tables

- To add a border to a Web table using HTML, use the border attribute  
`<table border="value"> ... </table>`  
 where *value* is the size of the border in pixels



## Spanning Rows and Columns

- A **spanning cell** is a single cell that occupies more than one row or one column in the table
- To create a table cell that spans several columns, add the attribute `colspan="value"` to the cell, where *value* is the number of columns covered by the cell
- To create a table cell that spans several rows, add the attribute `rowspan="value"` to the cell, where *value* is the number of rows covered by the cell

## Creating a Table Caption

- To create a table caption, add the caption element directly below the opening `<table>` tag with the syntax `<caption>content</caption>` where *content* is the content of the table caption

All times listed in central time

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
6:00	National News						
6:30	Local News						
7:00	Open	Today's	Science	The Living	World Plus	App's Week	
7:30	Post	Week	World	News View	Research Forum	Public First	
8:00	Old Time						
8:30	The Classical Music Connection			The Late Show		The Indie Connection	
9:30	World News First			Open Mike		The Indie Connection	
10:00	World News First						

## Marking Row Groups

- You can divide a table's rows into **row groups**, in which each group element contains different types of content and can be formatted differently
- A table can have multiple table body row groups

```
<table>
  <thead>
    table rows
  </thead>
  <tfoot>
    table rows
  </tfoot>
  <tbody>
    table rows
  </tbody>
</table>
```

## Marking Column Groups

- Once the table columns have been determined by the browser, you can reference them through the use of **column groups**

```
<table class="schedule" border="1">
  <caption>All times listed in central time</caption>
  <colgroup>
    <col class="firstcol" />
    <col class="daycols" colspan="7" />
  </colgroup>
```

col element spans seven columns

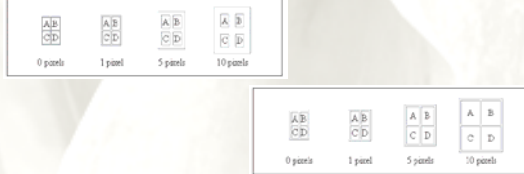
## Adding a Table Summary

- The summary attribute allows you to include a more detailed description about the table  
`<table summary="description"> ... </table>`

```
<table class="schedule" border="1"
  summary="This table contains the nightly KPBF program schedule aired from Bismarck, North Dakota. Program times are laid out in thirty-minute increments from 6:00 p.m. to 10:00 p.m., Monday through Sunday night.">
  <caption>All times listed in central time</caption>
```

## Formatting Tables with HTML Attributes

- The amount of space between table cells is known as the **cell spacing**
- The **cell padding** is the space between the cell contents and the cell border



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## Formatting Tables with HTML Attributes

- To define the padding within table cells, add the attribute `<table cellpadding="value"> ... </table>` to the table element, where *value* is the size of the padding space in pixels
- To define the space between table cells, add the attribute `<table cellspacing="value"> ... </table>` to the table element, where *value* is the space between table cells in pixels

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## Formatting Tables with HTML Attributes

- To set the width of the table to a specific value, add the width attribute `<table width="value"> ... </table>`
- Many browsers also support the height attribute `<table height="value"> ... </table>`
- You can use HTML to set the row heights by applying the height attribute `<tr height="value"> ... </tr>`

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## Formatting Tables with HTML Attributes

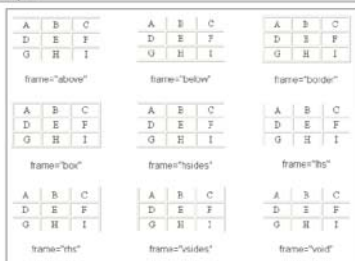
- A **table frame** specifies which sides of the table (or which sides of the table cells) will have borders `<table border="value" frame="type"> ... </table>`

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## Formatting Tables with HTML Attributes

Frame examples

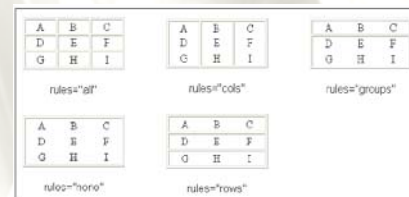


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## Formatting Tables with HTML Attributes

- A **table rule** specifies how the internal gridlines are drawn within the table `<table border="value" rules="type"> ... </table>`



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## Formatting Tables with HTML Attributes

- By default, browsers horizontally center the contents of table header cells and left-align the contents of table data cells
  - To control the horizontal alignment  
`align="position"`
  - To control the vertical alignment  
`valign="position"`

## Formatting Tables with CSS

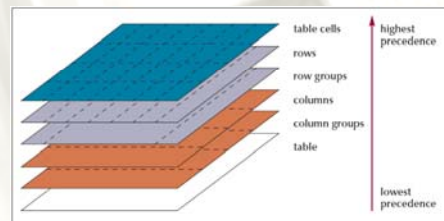
- Starting with CSS2, Cascading Style Sheets included support for Web tables
- You can apply one set of borders to the Web table itself and another set of borders to the individual cells within the table

## Formatting Tables with CSS

- To define the border model used by the table, apply the table style  
`border-collapse: type`  
where *type* is *separate* (the default) to keep all borders around cells and the table itself, *separate*, or *collapse* to merge all adjacent borders
- To set the space between separated borders, apply the table style  
`border-spacing: value`  
where *value* is the space between the borders in any of the CSS units of measure

## Formatting Tables with CSS

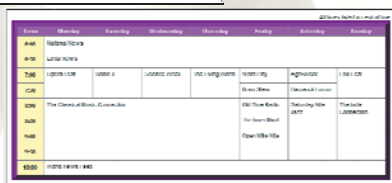
- The most general styles are those applied to the entire table



## Formatting Tables with CSS

- To position a table caption, apply the style  
`caption-side: position`  
where *position* is *top* or *bottom*

```
caption-side: top | bottom
```



## Applying Table Styles to Other Page Elements

Display Style	Equivalent HTML Element
<code>display: table</code>	table (treated as a block-level element)
<code>display: table-inline</code>	table (treated as an inline element)
<code>display: table-row</code>	tr
<code>display: table-row-group</code>	tbody
<code>display: table-header-group</code>	thead
<code>display: table-footer-group</code>	tfoot
<code>display: table-column</code>	col
<code>display: table-column-group</code>	colgroup
<code>display: table-cell</code>	td or th
<code>display: table-caption</code>	caption



# Class Notes: Working with Web Tables

## Creating a Rounded Box Using div Containers

```
<div class="top"><div class="bottom">  
<div class="left"><div class="right">  
<div class="topLeft"><div class="topRight">  
<div class="bottomLeft"><div class="bottomRight">  
  <div class="boxContent">  
    content  
  </div>  
</div></div></div></div>  
</div></div></div></div>
```

## Creating a Rounded Box Using div Containers

